

Protection Against Lightning.

Dr. Nahum Capen has contributed the more to the Boston Post a communication concerning lightning rods received by him several years ago from Dr. Henry, of the Smithsonian Institution, whom he believes to be the highest authority on this subject. Prof. Capen makes suggestions as follows:—The rod should consist of a number of about one inch in diameter; its ends, throughout the whole length, should be in perfect metallic continuity and be secured together by coupling rules.

To secure it from rust the rod should be coated with black paint. Itself a good conductor.

It should terminate in a single aluminum point.

The shorter and more direct the route of the cable, the better. The fittings should be rounded and not terminated in acute angles. It should be fastened to the building by iron eyes, and may be insulated with rubber or other suitable material. However, consider the latter of much importance.)

The rod should be connected with earth in the most perfect manner possible. It is better for this purpose than to place it in metallic contact with the gas pipes, or better, the water pipes of the city. This connection may be made by a ribbon of copper wire, or solder, or by the use of the rod itself at its extremities, and wrapped around the pipe at the other. If a connection of this kind is impracticable, the rod may be continued horizontally to the nearest earthed point, and then run downward until the end enters the ground.

horizontal part of the road may be covered by a siltum of powdered charcoal or ashes. The road is paved with a reference to the west side of it may be made up by an ordinary blacksmith. There is no reference in accordance with the latest knowledge of all the facts of electricity. Attempted improvement of it are worthless, and, as a general rule, the road are proposed by those who are slightly acquainted with the sub-

Mr. Capen says: "He speaks only of the road probably because least expensive. Rods of one-third the size, made of iron, would do the same way as the rods of one-half the size. He could answer the same question as follows: "When any building is struck by lightning, let all the phenomena be

size and situation of the building was how occupied and surrounded. If a house, what part. If a stable, how stabled. If protected by a rod, of what metal, how large in diameter and how far from the building, and of what metal, and how deeply set into the ground. The phenomena of electricity cannot be too carefully described, and if such descriptions are generally made to the press, the public will soon acquire much practical information that would not only be useful, but do much to remove a common skepticism in respect to the importance of well-adjusted lightning rods.

The preatling decrease in the number of insectivorous and other small birds, and the increase in the number of songbirds may be assigned for the diminution, but it seems to me the grand cause is the inevitable tendency of civilization to annihilate all forms of wild life. It is not only the number of birds, but the number of species. It is my observation, however, that boys wantonly destroy very few birds. The incipient hunter, being anxious to attest his desire for the bird, is content to shoot it, but the popular disapproval that follows the act generally cures him of his ambition to destroy anything not of the estimate game. In some of the Middle West, the Song Sparrow, the Chipping Sparrow, the Robin and the Rice-bird (bobolinks) are usually destroyed by hunters. In these places such birds are game, being considered as game by the very common and common-sense sportsman.

of pigeons and partridges. I am aware that the general habits of community are anywhere directly or indirectly the cause of the extermination of birds, and others not regarded as proper objects for destruction; the fact that certain varieties of birds in a measure recognize man as the cause of their extermination is a proposition. The few birds mapped for scientific purpose hardly affect the general number of individuals. The direct effects of civilization are strong in the destruction of birds. The destruction of the nest deprives birds of their natural protection; the relentless scythe that reaches out every nook and corner of the earth to the destruction of man, operates on the birds, on the same principle; the constant modification of the physical relation, effected by thorough agriculture, destroys the means of sustenance

tain varieties. In general, terns are not so numerous as gulls, and, moreover, they are not so common on the coast. They are seen only less birds. Strange, as it may at first seem, certain mechanical contrivances are eminently deadly to them. The tendency of birds to flash their wings when they are alarmed, is the cause of this. One of the most interesting this year 143 dead birds were found lodged upon a light-house near New Haven, Conn. We cannot tell how many hundred, after striking the light, were killed. The birds were found at night. Over two hundred birds were also found one morning this season on board a propeller in Long Island Sound, many, if not all were killed. The birds were found in the wake-stroke. More than these, the crew of the steamer Continental, at Hell Gate, found one night this season the body of the vessel covered with dead birds. All birds were found in the wake-stroke, and in the morning were seen upon the propeller.

Adred and fifty were counted; and was only a part of them. Bird laws are complete, but the birds are not harmless feathered tribes, but it is as if the time is coming when the song birds must be domesticated and preserved.

Jerusalem cannot be regarded as an important manufacturing center, furnished as its leading industry is olive wood carving. The chief manufacturer recently informed a correspondent of the London Times that he had been employed for his work; the market was overstocked and the number of pilgrims very small. German colonists are increasing in number and influence. In Jerusalem the German government has the office of the Knights of St. John, who have established a colony at Chifa.

While a composer on the Montreal business was setting up an advertisement of a lost canary a few days ago, a bird flew in at the office window. This shows the value of advertising.

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To the ladies of the Christian Temperance Union:

It is not strange that a single discussion of the temperance subject should seem to be incomplete and one-sided, for its phases are so manifold and the interests of humanity are touched by it at so many points that any address must be cursory and lacking in completeness, which attempts to cover more than a small part of the subject. And yet, I believe I give a single view of it, as to its bearing on the church in general, and to urge the church to rise "in moral suasion," calling that distinctively the "Christian method," and emphasizing this thought, "The power and elaboration of the strong individual, enriched with the cultured and logical, is the best method."

the same time fails to recognize the importance of any other phase of the temperance work, either at the time or in the subsequent season, we may consider that discussion defective. Its tendency is unfortunate. Supporters of the mail shall the distinctive work of the church in the temperance reform to moral suasion. But not every member of the church has other relations in the world and hence other obligations. The duty of citizenship is no less binding than the duty of religion. Every man has a variety of relations, some of which grow duties. He owes to himself to be temperate, frugal, pure, to protect his health, to entice his mind to subject to make the most of himself.

in every way. This obligation rests upon him without reference to his relations. To God he owes all this, and vastly more, as the source of his being and the rightful and only possible ruler of the universe. To the family, his immediate relations bring new duties; and obligations too plain to require enumeration. Then he sustains relations to society, to the government, and the world in general. These relations are universal. There are also special relations, as to the church, to organized societies, to certain of his fellow-men by the nature of different circumstances. By many different duties arise out of every one of these relations, all binding, if not with sword force, at least with conscience.

The true temperance man is a temperance man in all respects. He abstains from the use of intoxicating beverages, and he uses moral suasion to prevent others from using them; but he no less makes use of the instruments of prevention employed by society for its own protection. He is a temperance man for himself, for his family, for society.

for humanity's sake and for God. He employs the methods of warfare against the evil of intolerance peculiar to each relation he sustains. It is scarcely correct to speak of any one method of enforcing the principles of tolerance in the world as the "christian method," because if used in a proper sense this term is quite liable to be misunderstood and if not used in its proper sense the error is even worse than that of misapprehension. The truth is, all proper methods are christian methods. It is the christian duty to be a good citizen, and as a citizen to perform the citizen's duty of obeying and enforcing the law just as really and with as great a degree of oblation as it is to love and walk with

the church in christian fellowship. I is too narrow a view for men of learning and culture to take out excellence of character and emphasize it into abnour of importance in the estimate of a man. It is even worse for a public teacher to single out one duty of man, and by his powers of eloquence make it seem all important and all other duties secondary, if not without consequence.

What should we say of the Christian minister who ignoring all other Christian graces should name and teach that benevolence is distinctively the Christian grace. But what have you to say of honesty, purity, fidelity to trusts, meekness, temperance, and love to God and man? Temperance work

like efforts in behalf of all moral reform, is beset with difficulties, requiring, to be successful, patience, faith, earnestness of purpose and a good degree of practical wisdom. Any one who thinks the world can be reformed as the evils of intemperance remedied by a single campaign, is greatly mistaken. Enthusiasts are sometimes serviceable even in the temperance work, but they are not the reliance of those who have studied the subject in all its bearings, and know the character of the enemy; they have to meet, in order to understand the nature of the work to be done, and to be prepared to accomplish something valuable in the direction of reform, we should recognize these facts,

First principle: First, Intemperance is an evil of the greatest magnitude. This fact is already pretty well understood, and needs no elaboration. Every temperance address proves it, by statistics, by examples, by appealing to universal observation and experience.

Secondly, It is intrenched in the appetites and cupidity of men, and will be eradicated when man ceases to crave the excitements of stimulants, and when the unlawful gains of traffic in the dead ly stuff no longer appeal to the cupidity of the trafficker.

Thirdly, It is the duty of every well willed human race to seek by every legitimate means to promote temperance and temperance, to repress vice and

Fourthly, The evils of intemperance can never be so annihilated that we can refer to the work of reform as finished up, or that it will no longer require constant and earnestly active work on the part of temperance men and women.

Fifthly, The temperance work belongs to every, no party, no church, no organization, no individual, and to the exclusion of others. All are alike under obligation to move forward and use all legitimate means to secure the end in view. They should work in the way which opens the widest field, and estimate the value of other methods as all to render their assistance in these other methods when opportunity offers.

Yours truly,

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